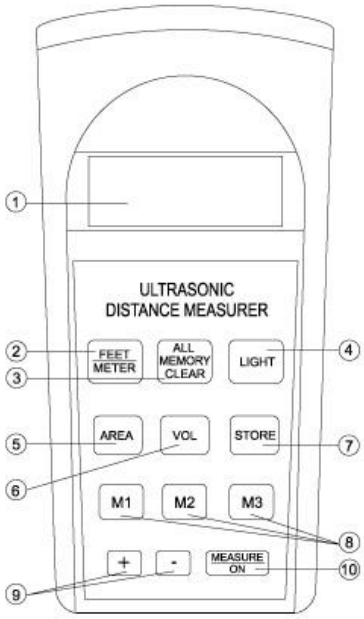
USER'S MANUAL



CB-1005

ULTRASONIC DISTANCE METER W/LASER POINT

1. LIQUID CRYSTAL SCREEN
2. MEASURE IN FOOT OR IN METER
3. MEMORY CLEARING
4. SCREEN LIGHTING
5. AREA
6. VOLUME
7. STORE
8. MEMORIES 1 -2 - 3
9. ADDITION OR SUBTRACTION FUNCTION
10. MEASURE (ON)

Characteristics

Your ultrasonic distance measurer is perfect for real estate agents or building-industry professionals who need to know quickly a measure or the area of a room. Your distance measurer can measure distances in a straight-line from 0.91 m to 15 meters. Your distance measurer transmits ultrasonic waves to a point you want to measure. Afterwards, it measures the time taken by the waves to reflect and then calculates and retranscribes the distance.

Your distance measurer features:

- With laser point aiming to see the target that one wishes to measure distance.
- Foot/Meter function button: it allows you to transcribe measures in foot or in meter and to convert a given distance into the type you want.
- Liquid crystal screen on a luminous background: you can light the screen, thus allowing an easier reading of information, even in a poorly lighted environment.
- Automatic stop: your distance measurer switches off if you do not press any key during 4 min.
- 3 memories: allow you to measure and to store 3 different measures. This function is useful if you want to measure the length, the width and the height of a room.
- Calculation of area and volume: area and volume calculation based on the data measured by you.
- Addition and Subtraction function: allows you to add or subtract 2 measures.
- "Clearing of memory" function: allows you to delete quickly all the measures stored.
- Correction of errors: the distance measurer indicates that the distance you measure is too long or too short.

Preparation

Installation of battery: your distance measurer operates with a 9V battery (type 6LR61 not supplied).

CAUTION: use only a new battery of the size and type required.

Instructions for the installation of a battery
1/ Slide the lid of the battery compartment in the direction of the arrow to open it.
2/ Place the battery in the compartment and over the ribbon, as indicated by the markings of the polarity (+ and -) symbols inside it.
3/ Put the lid back in place. As soon as the low-battery warning appears or the distance measurer does not work correctly, the battery must be replaced.

CAUTION
- Worn out batteries must be disposed of rapidly and cleanly. Do not burn or bury them.
- At the end of its travel, the laser beam should always encounter a diffuse reflection material (examples: a wooden plank).
- Class 2 Laser Radiation When open, do not stare into the beam.
- Do not direct the beam in the direction of people or animals around you.

Precautions
If you do not plan to use your distance measurer for a month or more, remove the battery. Batteries may spill chemical products that can destroy electronic parts.

Setting of distance measurer
Your distance measurer is sensitive to temperature and humidity changes. Before use, wait about 15 min to allow it to adjust to room temperature.

Summary

Foot / Meter	Clear	Light
Area	Volume	Memory
M1	M2	M3
+	-	Measure / ON

Switching on of the distance measurer
For switching on the distance measurer, set LD/NORMAL/OFF located on the side of the distance measurer to LD or Normal position, the laser will light up, and you can fix the target with the laser point. The distance measurer switches off automatically after 4 min. For switching off by hand, set LD/NORMAL/OFF to OFF position, the laser will black out.

REMARK
When you set LD/NORMAL/OFF located on the side of the distance measurer, to OFF, all measures stored in the memory are deleted.

Measuring
1/ If the distance you want to measure is 10.67m or less, set LD/NORMAL/OFF to Normal (normal range). Otherwise, set LD/NORMAL/OFF to LD (long distance range).
2/ Press the Foot/Meter button until the Foot sign appears (for a foot measure) or the Meter sign appears (for a meter measure).
3/Keep the bottom of the distance measurer flat against a wall, equidistant from the floor to the ceiling. Ensure that there is no obstacle towards the point you want to measure and that your head or your hands do not induce the distance measurer into error.
4/ Press the Measure/ON key. The distance measurer beeps, then the distance between the distance measurer and the point you are measuring appears.

REMARKS
The measure appears for about 4 min (or more if you press another key). ERROR may appear if you try to measure a distance longer or shorter than the range chosen or longer than 18.288m.

How to carry out a good measurement
- Some types of curtains and window-blinds may absorb waves, thus causing inaccurate measurements. If you measure the dimensions of a room with curtains, open the curtains before measuring the distance between the window and yourself. Ensure also that the window is firmly closed.
- If you do not have a direct way, free of obstacles, between the points you want to measure, you will get wrong values due to the waves rebounding on objects such as chairs, tables and uneven surface objects. If you are not sure that a measurement is correct, move slightly to a side and measure once more the distance.
- If the surface of a wall you are measuring is not flat and solid, or if you are measuring in a narrow corridor, you will get wrong values. If that is the case, use a solid surface to measure or move from the centre of the corridor.
- To avoid wrong values, if you set LD/NORMAL/OFF to LD, ensure that there is no object at 2.5 meters from the point you are measuring (except in the case the floor is below a point).
- To measure a distance longer than 18.288 meters, choose a point in the middle of the room (for instance), from the centre, measure the room towards each side, and add the two measures.

Saving a measure
1/ Follow the steps in paragraph "Measuring" for measuring a dimension.
2/ Press STORE then a memory key (M1, M2 or M3). M and the number you choose (1, 2 or 3) to locate, the memory appears and the measure is stored in the memory.
3/ If necessary, repeat steps 1 and 2 for saving 3 measures.
4/ To display a measure stored in the memory, press memory key (M1, M2 or M3). And the measure that you saved is displayed again.

To delete a stored measure, simply enter a new measurement in the place of the older one.

To clear all the measures stored, set LD/NORMAL/OFF to OFF during at least 3 seconds. The distance measurer alarm and the memory figure M that you choose (1, 2 or 3) disappear.

Calculation of volume
To find the volume of a room, measure the height, the width and the length of the room and save each measure in a different memory (see "Saving a measure"), then press VOL. FEET 3 or METER3, VOLUMEN and the result of the calculated volume is displayed.

Calculation of area
Follow these steps to find the area saving two measures.
1/ Measure the width and the length of the room and store the values in M1 and M2 (see "Saving a measure").
2/ Press AREA; M1 and M2, METER2 or FEET2 and AREA and the result of the calculated area appears.

Add/subtract stored measures
1/ Measure 2 dimensions in a room and store the measures in M1 and M2 memories (see "Saving a measure")
2/ Press ALL MEMORY CLEAR (clearing of memory).
3/ Press +, M1, +, M2, then + for adding the measures, or +, M1, -, M2, then + for subtracting them. The calculated value is displayed.
4/ For clearing the display and carrying out another measurement, press ALL MEMORY CLEAR (clearing of memory).

REMARK:

Use of lighting
For lighting the display, press LIGHT (lighting of the screen).
The display is lighted for about 5 seconds and then it goes out automatically.

CAUTION
For storing your distance measurer for a long period of time:
- Keep the distance measurer dry. If it is moist, wipe it immediately until it is dry.
- Use and store the distance measurer only in a normal temperature environment.
- Handle the distance measurer carefully.
- Keep the distance measurer away from dust and soil.
- Wipe the distance measurer with a moist cloth to keep it in good condition.
- Modifying or tampering with an internal component of the distance measurer may cause failure.
- The warranty does not cover this kind of problem. If your distance measurer does not work as it should, take it to your retailer for inspection.

Specifications

Power supply:	1x9V Alkaline type 6LR61 Battery
Measure units:	Foot or Meter
Accuracy:	0.5%
Frequency:	40 kHz (ultrasonic pickup)
Working temperature:	0° to 43°C
Range:	0.91 to 18.288 m
Dimensions (H-P-l):	142x73x47 mm
Weight (without battery):	144.6gr

Laser beam
Wattage < 1mW (mW =milliwatt)
Wavelength: 650mm (nm =nanometer)
Class 2 laser according to EN60825-1